

REMARKS

The Examiner rejected Claims 1-12 under 35 U.S.C. 101 because they did not “include a practical application with a concrete, useful, and tangible result”. Claim 1, from which Claims 2-12 depend, has been amended to recite that the contents of at least one of the registers is delivered to an external device.

The Examiner rejected Claims 1-2, 5-6, 8-9 and 11 under 35 U.S.C. 102(b) as being clearly anticipated by Cox, *et al* (hereafter "Cox"). Applicant traverses the rejection.

First, Claim 1 requires that each partition of the plurality of partitions has a register and an adder. The register must hold the number of bits that are in the input to the partition and the output of the partition must likewise have this number of bits. The Examiner points to Cox, Figures 1-2, identifying 110 and 120 as the plurality of partitions, and registers 115 and 130 as the registers required by the Claim. The Examiner also points to element C as the delay element.

Consider element 110 of Cox. The number of input bits to this element is 4. Hence, the register must hold 4 bits and the partition must have an output of 4 bits. The output of partition 110 is at most 3 bits, S0, S1, and C. In addition, the adder within the partition must add the input bits to the bits from the register output to the input bits and feed the sum to the register input. The adders in partition 110 do not add any bits from the register output, and hence, this limitation is not satisfied. In fact, the adders in partition 110 do not add any bits from either of the registers identified by the Examiner.

Similarly, element 120 of Cox fails to satisfy the limitation of Claim 1. The only candidate for the register in this “partition” is the 4 bits of register 115. Element 120 has 4 input bits and two output bits. Hence, this element also fails to satisfy the partition limitations. The adders likewise fail to satisfy the limitations of Claim 1, since the adders add the outputs of the register but do not feed the sum to the register input. Accordingly, Applicant submits that Cox does not anticipate Claim 1 or the claims dependent therefrom.

With respect to Claim 9, the Examiner has not pointed to a delay element between the output of the register and the output bits least significant partition. Element C identified by the Examiner as a delay element clearly does not satisfy this limitation. Hence, there are additional grounds for allowing Claim 9

Claim 11 requires two additional delay elements. The first is between the input bits to the accumulator and the input to the adder, and the second is between the outputs of the register and the outputs of the accumulator. The least significant partition would have to be element 110. There is clearly no delay element between the bits of register 115 or the bits of register 130 and the output of the accumulator. The only element between the parallel input bits and the adders in element 120 of Cox is register 115, which the Examiner has already identified as the register for that partition. Hence, there are additional grounds for allowing Claim 11.

The Examiner rejected Claims 3-4, 7, 10 and 12 under 35 U.S.C. 103(a) as being unpatentable over Cox. Applicant traverses the rejection.

The Examiner states that the additional limitations required by dependent claims 3-4, 7, 10 and 12 “are old and/or well known in the art”. The Examiner maintains that it would have been obvious “to design the claimed invention according to Cox’s teaching because the device is a parallel accumulator having a plurality of partitions as claimed”.

First, as noted above with respect to Claim 1, Applicant submits that several of the limitations of Claim 1, from which Claims 3-4, 7, 10, and 12 depend, are not taught by Cox.

Second, the Examiner has not provided any motivation that would cause someone of ordinary skill in the art to modify the teachings of Cox to arrive at the additional limitations. The mere fact that all of the elements of a claim are known to the art is not sufficient to sustain a rejection under 35 U.S.C. 103. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1556, 1568 (Fed. Cir. 1990) (quoting *Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 140, 231 USPQ 644, 647 (Fed. Cir. 1986)). A statement that modifications of the prior art to

meet the claimed invention would have been " `well within the ordinary skill of the art at the time the claimed invention was made' " because the references relied upon teach that all aspects of the claimed invention were individually known in the art" is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).

Hence, Applicant submits that the Examiner has not made a *prima facie* case for obviousness with respect to Claims 3-4, 7, 10, and 12.

Respectfully Submitted,

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